

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 13 and 18, and cancel claims 9, 15, 16, and 22-31, as set forth in the listing of claims that follows:

1. (Currently Amended) A catalytic converter comprising:

a catalyst substrate comprising a catalyst, and having a first lip concentrically disposed about a first end of said catalyst substrate, a second lip concentrically disposed about a second end of said catalyst substrate, at least one ridge therebetween, and an outer surface such that the ridge is spaced apart from the first lip by said outer surface and spaced apart from the second lip by said outer surface, said outer surface having an outer surface diameter less than the outer diameter of the ridge;

a shell having an opening, and concentrically disposed around said catalyst substrate, said shell comprising a U-shaped attachment opposite the ridge; and

a first mat support material disposed about the outer surface between said ridge and the first lip, and a second mat support disposed about said outer surface between said ridge and the second lip and spaced apart from the first mat support material by a gap between said ridge and said shell, whereby the U-shaped attachment is disposed with said gap.

2. (Original) A catalytic converter recited in Claim 1, wherein said first lip and said second lip are continuous annular lips.

3. (Original) A catalytic converter recited in Claim 1, wherein said first lip and said second lip are segmented annular lips.

4. (Cancelled)

5. (Previously Presented) A catalytic converter recited in Claim 1, wherein said ridge comprises a continuous annular geometry.

6. (Previously Presented) A catalytic converter recited in Claim 1, wherein said ridge comprises a segmented annular geometry.

7. (Previously Presented) A catalytic converter recited in Claim 1, wherein said ridge has a diameter equal to or smaller than the first lip diameter.

8-9. (Cancelled)

10. (Previously Presented) A catalytic converter recited in Claim 9, wherein sides of said U-shaped attachment contact edges of said first mat support material and said second mat support material.

11. (Original) A catalytic converter recited in Claim 1, wherein said shell further comprises a first annular shoulder disposed concentrically and circumferentially about said shell adjacent said first lip.

12. (Previously Presented) A catalytic converter recited in Claim 11, wherein said shell further comprises a second annular shoulder disposed concentrically and circumferentially about said shell adjacent said second lip.

13. (Currently Amended) A catalytic converter comprising:
a catalyst substrate comprising a catalyst, and having a first lip
concentrically disposed about a first end of said catalyst substrate, a second lip
concentrically disposed about a second end of said catalyst substrate, at least one ridge
therebetween, and an outer surface such that the ridge is spaced apart from the first lip by
said outer surface and spaced apart from the second lip by said outer surface, said outer
surface having an outer surface diameter less than the outer diameter of the ridge;
_____ a shell having an opening, and concentrically disposed around said catalyst
substrate; and
_____ a first mat support material disposed about the outer surface between said
ridge and the first lip, and a second mat support disposed about said outer surface
between said ridge and the second lip and spaced apart from the first mat support material
by a gap between said ridge and said shell
~~A catalytic converter recited in Claim 1,~~ wherein said ridge is intermittent and said shell
further comprises ~~at least one depressed annular area~~ intermittent depressions
concentrically and circumferentially disposed about said shell coinciding with said ridge.

14-16. (Cancelled)

17. (Original) A catalytic converter recited in Claim 1, further comprising a mat protection ring concentrically disposed within said shell, concentrically around an end of said catalyst substrate.

18. (Currently Amended) A catalytic converter recited in Claim 1, further comprising an endcone, endplate, or exhaust manifold, disposed at one or ~~more~~ both ends of said shell.

19-31. (Cancelled)